

US EPA RECORDS CENTER REGION 5



465804

Monthly Oversight Report 23
ACS NPL Site
Griffith, Indiana
November 2, 2002 - November 29, 2002



BLACK & VEATCH

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Black & Veatch Special Projects Corp.

USEPA/RAC VII
American Chemical Services RAO (057-ROBF-05J7)

BVSPC Project 46526
BVSPC File C.3
December 11, 2002

Mr. Kevin Adler
U.S. Environmental Protection Agency
77 W. Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3590

Subject: Monthly Oversight Summary Report
No. 23 for November 2002

Dear Mr. Adler:

Enclosed is the Monthly Oversight Summary Report No. 23 for November 2002 for the American Chemical Services Superfund Site in Griffith, Indiana.

If you have any questions, please call (312-683-7856) or email (campbelllm@bv.com).

Sincerely,

BLACK & VEATCH Special Projects Corp.

Larry M. Campbell, P.E.
Site Manager

Enclosure

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Monthly Oversight Summary Report No. 23
ACS Superfund Site WA57, 46526.238

Reporting Period: Month of November (November 2, 2002 - November 29, 2002)

BVSPC O/S Dates: November 5, 7, 12, 14, 22, and 26, 2002

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	5	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Karaganis, White & Magel	2	PRP Group Lawyer
Austgen	2	Electrical Contractor
Ryan Construction	2	General Contractor
Hard Hat Services, Inc.	4	ONCA SBPA Interim Cover Contractor
Great Lakes Soil & Environmental Testing	1	ONCA SBPA Interim Cover Geotechnical Testing
Area Survey	2	ONCA SBPA Interim Cover Surveyor
Boart Longyear & Associates	6	ONCA SBPA ISVE Well Driller
Independent Environmental Services	4	ONCA SBPA ISVE Yard Piping Contractor

Construction Activities

Major Activities:

- Boart Longyear & Associates completed installing the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system wells.
- Boart Longyear & Associates damaged the 3-inch-diameter groundwater conveyance piping during drilling activities.
- Boart Longyear & Associates damaged and repaired piezometer P-36.
- An Area Survey crewmember injured his knee in an abandoned borehole.
- Hard Hat Services, Inc. completed installing the On-Site Containment Area Still Bottoms Pond Area interim cover.
- Great Lakes Soil & Environmental Testing tested the compaction of the On-Site Containment Area Still Bottoms Pond Area gravel road.

- Area Survey surveyed the final elevation of the On-Site Containment Area Still Bottoms Pond Area interim cover.
- Independent Environmental Services repaired the damaged groundwater conveyance piping and began installing the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system yard piping.
- Ryan Construction installed the stubups for the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system yard piping and placed gravel and poured a mudslab for the blower shed slab.
- Ryan Construction poured a concrete slab at the groundwater treatment plant for the future thermal oxidizer.
- Montgomery Watson Harza resumed operating the Off-Site Containment Area in-situ soil vapor extraction system.
- Montgomery Watson Harza held weekly construction coordination meetings on November 7, 14, and 21, 2002. Montgomery Watson Harza postponed the weekly construction coordination meeting scheduled for November 28, 2002, to December 2, 2002, because of the Thanksgiving Holiday.

Activities Performed:

Boart Longyear & Associates (BLA) completed installing the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) wells. BLA performed the drilling activities in Level B personal protective equipment and performed continuous air monitoring with a photoionization detector (PID) and an oxygen and lower explosive limit (LEL) meter. BLA placed all drill cuttings into lined and tarped rolloffs for future disposal. BLA and MWH performed air monitoring around the rolloffs.

During the week of November 4, 2002, Black & Veatch Special Projects Corp. (BVSPC) observed that BLA did not submit in its Health and Safety Plan the proper documentation for one of the BLA employees at the site. On November 7, 2002, BVSPC questioned Chad Smith of Montgomery Watson Harza (MWH) whether the documentation was on-site for the employee. MWH and BLA reported that they did not have the documentation on-site. BLA removed the employee from the site until the health and safety documentation was faxed to the site shortly thereafter.

BLA drilled into the 3-inch diameter groundwater conveyance piping while drilling well SVE-46. MWH earlier had pressurized the conveyance piping so that BLA would detect if the piping was damaged. BLA relocated the well and proceeded to install SVE-46.

MWH reported that BLA damaged piezometer P-36 on November 1, 2002, and repaired the piezometer on November 6, 2002. MWH reported that it would have Area Survey resurvey the elevation of P-36 and MW-10C.

During installation of one of the vapor phase extraction wells, SVE-52, BLA was unable to place the sand pack in the well casing because of a viscous, sticky fluid that was blocking the augers. BLA removed the augers and the well and moved the well location about 5 feet to the southwest. BLA filled the abandoned

borehole with bentonite to the bottom of the interim clay cap. On Thursday, November 7, 2002, an Area Survey crewmember stepped into the abandoned borehole and twisted his knee. The surveyor left the site and proceeded to seek medical attention on November 8, 2002. MWH reported that the crewmember from Area Survey was checked out by the doctor and was cleared to return to work on November 11, 2002. MWH reported that it will complete its incident report. BLA demobilized from the site on November 15, 2002.

MWH reported that during the installation of the air sparge wells, clay was not encountered at the anticipated elevation of 620 feet above mean sea level. MWH decided to proceed to install the air sparge wells at their design depth rather than attempting to install the wells so that they would terminate at the top of the clay layer, as originally planned. MWH reported that the depth of the air sparge wells spans the extent of the observed contamination based on visual observation and PID readings.

Hard Hat Services, Inc. (HHSI) installed the geotextile fabric and gravel to construct the ONCA SBPA road and parking lot. HHSI also completed the cover construction in the areas of the stormwater catch basins and smoothed areas of clay cover to eliminate any voids or pitting. Great Lakes Soil & Environmental Testing performed compaction testing of the gravel road. MWH reported that the compaction testing met its requirements of 90% compaction. Area Survey surveyed the final elevation of the ONCA SBPA interim cover. HHSI demobilized from the site on November 12, 2002.

MWH contracted with Independent Environmental Services (IES) for the repair of the damaged 3-inch-diameter groundwater conveyance piping and for the installation of the ONCA ISVE yard piping. MWH modified the yard piping design so that the piping is installed on top of the clay layer, rather than under the clay layer as designed in the Final Remedial Design Report.

IES repaired the damaged 3-inch-diameter groundwater conveyance piping that was damaged during drilling activities on November 22, 2002. During pressure testing, IES found that the piping was damaged at two other locations in addition to the location near SVE-46. IES excavated the piping in these areas and found that the damage was at the 1-inch-diameter whips installed off of the groundwater conveyance piping. IES completed the repairs and successfully pressure tested the piping. IES began installing the pitless adaptors and saddles for the dual phase extraction wells. IES inerted the wells using an inflatable plug and nitrogen. IES measured the oxygen level and the LEL prior to drilling into the wells. IES also performed continuous air monitoring using a PID, and personnel wore half-face respirators while working in the excavation.

MWH reported that it contracted with Midwest Environmental, Inc. (MEI) to bury the drill cuttings from the ONCA ISVE well installation under the ONCA clay cover, inside the ISVE area. MWH has postponed the relocation of the drill cuttings until IES is complete with its work.

Montgomery Watson Harza (MWH) and Ryan Construction installed the stubups for the ONCA SBPA ISVE system blower shed for the yard piping. Ryan Construction later placed gravel and the mudslab for the ONCA SBPA ISVE system blower shed foundation on November 27, 2002. Ryan Construction placed concrete blankets on the gravel in order to prevent frost and freezing until the concrete can be

poured. Ryan Construction also poured the concrete slab for the future ONCA SBPA ISVE system thermal oxidizer at the groundwater treatment plant (GWTP).

MWH reported that it resumed operating the Off-Site Containment Area (OFCA) ISVE system thermal oxidizer and scrubber on November 4, 2002. MWH reported that it was pulling vapors from 17 OFCA ISVE wells. On November 12, 2002, MWH shut the system down in order to make adjustments to the caustic feed system. MWH resumed operation of the system on November 13, 2002, and reported that it will schedule a shut down in the future in order to inspect the system. MWH installed placarding on the OFCA thermal oxidizer and scrubber units to warn of the elevated temperatures associated with these units.

MWH reported that the groundwater treatment plant operated between 25 and 40 gpm. MWH shut down the GWTP on November 4, 2002, in order to install the heat exchanger in tank T-2. MWH resumed operating the GWTP on November 5, 2002, and began operating the heat exchanger. MWH also reported that it installed the pumps in monitoring wells MW-10C and MW-56. MWH began operating these pumps at 0.5 and 1 gpm, respectively, after Austgen completed the control system. MWH reported that it expected the flow rate of the GWTP to reduce as the amount of water available to be extracted from the Barrier Wall Extraction System is reduced. However, the rate should increase when the ONCA SBPA dual phase extraction wells are brought on-line.

MWH reported that the preliminary results from the resampling of residential well PW-B indicated that organics were not detected in the sample. PW-B was resampled in October because bis-(2-ethylhexylphthalate) had been detected in the original sample. MWH reported that it will forward the data once it has been validated.

Attached are BVSPC weekly reports No. 88 through 91, correspondence, log book notes, and photographs of the daily activities. BVSPC's crew conducted oversight of the major field activities on November 5, 7, 12, 14, 22, and 26, 2002. BVSPC's crew attended two weekly construction coordination meetings at the site on November 7 and 14, 2002. BVSPC attended the weekly construction meeting held on November 21, 2002, at MWH's Warrenville office.

Topics of Concern:

- Neither MWH or BLA had the proper Health and Safety documentation for one of BLA's employees available on-site.
- An Area Survey crewmember twisted his knee in a partially backfilled borehole on November 7, 2002.

Concern Resolution:

- BLA removed its employee from the site until the proper documentation was provided shortly thereafter.
- The Area Survey crewmember who twisted his knee left the site and visited a doctor on November 8, 2002. He was cleared to return to work on November 11, 2002. MWH reported that it had followed up with Area Survey and will file an incident report.

Upcoming Activities:

- Area Survey to resurvey P-36 and MW-10C.
- IES to continue installing the ONCA SBPA ISVE system yard piping.
- MEI to bury drill cuttings under the ONCA clay cover.
- Ryan Construction to pour the ONCA SBPA ISVE system blower shed foundation.

Signature: Leigh Peters

Date: December 4, 2002

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Weekly Oversight Summary Report No. 88
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of November 4, 2002

BVSPC O/S Dates: November 5 and 7, 2002 (Ms. Peters)

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	6	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Karaganis, White & Magel	2	PRP Group Lawyer
Hard Hat Services, Inc.	4	ONCA SBPA Interim Cover Contractor
Boart Longyear & Associates	6	ONCA SBPA ISVE Well Driller
Ryan Construction	2	General Contractor
Area Survey	2	Surveying Contractor

Construction Activities

Major Activities:

- Boart Longyear & Associates continued to install the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system wells.
- Boart Longyear & Associates damaged the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system groundwater conveyance piping.
- Area Survey began surveying the final contours for the On-Site Containment Area Still Bottoms Pond Area interim cover.
- An Area Survey crewmember twisted his knee in a partially backfilled borehole.
- Hard Hat Services, Inc. began installing the geotextile and gravel road for the On-Site Containment Area Still Bottoms Pond Area interim cover.
- Montgomery Watson Harza resumed operating the Off-Site Containment Area in-situ soil vapor extraction system.
- Montgomery Watson Harza held the weekly construction coordination meeting.

Activities Performed:

Boart Longyear & Associates (BLA) continued to install the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) system wells. BLA completed installing the six air sparge wells and began installing the dual phase extraction and vapor extraction wells. BLA donned Level B personal protective equipment and continued to perform air monitoring with a

photoionization detector (PID) and an oxygen and lower explosive limit meter during drilling activities. BLA continued to place the drill cuttings into a lined and tarped rolloff box and conduct air monitoring around the rolloff.

Black & Veatch Special Projects Corp. (BVSPC) observed that BLA did not submit in its Health and Safety Plan the proper documentation for one of its employees at the site. On November 7, 2002, BVSPC questioned Chad Smith of Montgomery Watson Harza (MWH) whether the documentation was on-site for the employee. MWH and BLA reported that they did not have the documentation on-site. BLA removed the employee from the site until the health and safety documentation was faxed to the site shortly thereafter.

BLA drilled into the 3-inch-diameter groundwater conveyance piping while drilling well SVE-46. MWH had earlier pressurized the conveyance piping so that BLA would detect if the piping was damaged. BLA relocated the well and proceeded to install SVE-46. MWH reported that it would schedule to have the conveyance piping repaired. BLA is expected to complete its work by November 20, 2002.

During installation of one of the vapor phase extraction wells, SVE-52, BLA was unable to place the sand pack in the well casing because of a viscous, sticky fluid that was blocking the augers. BLA removed the augers and the well and moved the well location by about 5 feet to the southwest. BLA filled the abandoned borehole with bentonite to the bottom of the interim clay cap. On Thursday, November 7, 2002, an Area Survey crewmember stepped into this abandoned borehole and twisted his knee. The surveyor left the site and proceeded to seek medical attention on November 8, 2002. MWH reported that it would follow up with Area Survey on the individual's condition and that it will file an incident report.

MWH reported that during the installation of the air sparge wells, clay was not encountered at the anticipated elevation of 620 feet above mean sea level. MWH decided to proceed to install the air sparge wells at their design depth rather than attempting to install the wells so that they would terminate at the top of the clay layer, as originally planned. MWH reported that the depth of the air sparge wells spans the extent of the observed contamination based on visual observation and PID readings.

Hard Hat Services, Inc. (HHSI) began installing the geotextile fabric and gravel to construct the ONCA SBPA road and parking lot. MWH reported that it conducted a site walk with HHSI and identified areas of additional work to be completed. MWH reported that the remaining work for HHSI includes completing the cover construction in the areas of the stormwater catch basins and smoothing the clay cover to eliminate any voids or pitting. MWH reported that it will task Great Lakes Soil & Environmental Testing to perform compaction testing of the gravel road. MWH also reported that it will confirm the thickness of the clay cover once Area Survey has completed its survey of the top of clay.

MWH reported that it resumed operating the Off-Site Containment Area (OFCA) ISVE system thermal oxidizer and scrubber on November 4, 2002. MWH reported that it was pulling vapors from 17 OFCA ISVE wells. MWH initially began operating the OFCA ISVE system with dilution air at the blower shed. MWH was able to operate the system without diluting the air flow by November 7, 2002.

MWH reported that the groundwater treatment plant operated at 40 gpm. MWH reported that it shut down the GWTP on November 4, 2002, in order to install the heat exchanger in tank T-2. MWH resumed operating the GWTP on November 5, 2002, and began operating the heat exchanger. MWH also reported that it installed the pumps in monitoring wells MW-10C and MW-56. MWH began operating these pumps at 2 gpm; however, it stopped operating the pumps in order to install the final instrumentation and controls. MWH expected to resume pumping from these wells by the end of the week.

MWH reported that the preliminary results from the resampling of residential well PW-B indicated that organics were not detected in the sample. PW-B was resampled in October because bis-(2-ethylhexylphthalate) had been detected above the method detection limit. MWH reported that it will forward the data once it has been validated.

MWH held the weekly construction coordination meeting on November 7, 2002.

Topics of Concern:

- Neither MWH or BLA had the proper Health and Safety documentation for one of BLA's employees available on-site.
- An Area Survey crewmember twisted his knee in a partially backfilled borehole on November 7, 2002.

Concern Resolution:

- BLA removed its employee from the site until the proper documentation was provided shortly thereafter.
- The Area Survey crewmember left the site and visited a doctor on November 8, 2002. MWH reported that it would follow up with Area Survey and file an incident report.

Upcoming Activities:

- BLA to continue ONCA SBPA ISVE system well installation.
- MWH to repair the 3-inch-diameter water conveyance piping.
- HHSI to complete the ONCA SBPA interim cover.
- Great Lakes Soil & Environmental Testing to test the compaction of the ONCA SBPA gravel road.
- MWH to resume pumping from MW-10C and MW-56.

Signature: Leigh Peters

Date: November 18, 2002

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**WEEKLY CONSTRUCTION MEETING AGENDA
FOR NOVEMBER 7, 2002 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: Thursday, November 7, 2002

MEETING TIME: 10:00 am

MEETING LOCATION: ACS Site – Site Trailer

TOPICS:

Health and Safety Summary (Lee or Tom)

GWTP Status (Lee)

- Current flow rate
- Heat exchanger installation

Off-Site ISVE System (Tom)

- System operation

SBPA ISVE Well Installation (Todd/Boart)

- Status
- Look head schedule

On-Site Interim Cover (Todd/Rob/Hard Hat)

- Road installation
- Demobilization

Looking Ahead

Week of...	Task
November 11	<ul style="list-style-type: none">• GWTP system operation• SBPA ISVE well installation• Hard Hat Services road installation
November 18	<ul style="list-style-type: none">• GWTP system operation• SBPA ISVE well installation
Health and Safety Look Ahead	<ul style="list-style-type: none">• On-Site cover work – PPE/Air monitoring/coordination with ACS facility• Drilling activities

Next Weekly Construction Meeting

- Thursday, November 14, 2002

SIGN IN SHEET
WEEKLY CONSTRUCTION MEETING
November 7, 2002

Name	Company	Fax Number
ROB ADAMS	MWH	630-836-8959
Leigh Peters	BVSPL	312-346-4781
TODD LEWIS	MWH	630 836 8959
CLAUDIA STASK	KW+M	312-836-1177
Barbara Magel	KW+M	312-836-1122
LEE OROSZ	MWH	
TRAVIS KLINGFORTH (PHONE)	MWH	
JOHN POHL (PHONE)	MWH	
STU RUSSELL (PHONE)	AHSI	
TOM TINES	MWH	
Peter VAGT	MWH	
Bill Stuckey	BLA	317-784-2035

**WEEKLY CONSTRUCTION MEETING MINUTES
FOR NOVEMBER 7, 2002 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: November 7, 2002

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES: Todd Lewis – MWH
Peter Vagt – MWH
Rob Adams – MWH
Lee Orosz – MWH
Jon Pohl – MWH (via phone)
Tom Tinics – MWH
Travis Klingforth – MWH (via phone)
Barbara Magel – Karaganis, White, and Magel
Claudia Stlask – Karaganis, White, and Magel
Leigh Peters – BVSPC
Stu Russell – Hard Hat Services, Inc. (HHSD) (via phone)
William Stuckey – Boart Longyear

TOPICS:

Health and Safety Summary

Air monitoring continues to be conducted in the exclusion zone and around the perimeter of the exclusion zone as Boart Longyear & Associates (BLA) installs wells in the Still Bottoms Pond Area (SBPA) for the On-Site In-Situ Vapor Extraction (ISVE) System.

Crewmembers working at the Site continue to wear high-visibility traffic vests because of trucks delivering equipment and supplies to the Site.

A crewmember of Area Survey potentially injured his knee on November 7. During surveying activities, he stepped into a depression while walking between survey sites. This depression was formed at a location where BLA had previously attempted to install a well but had met refusal. BLA had abandoned the location by filling the hole with bentonite and recovering the surface with 12 inches of clay, but the bentonite apparently settled into void spaces in the ground. A doctor at the hospital will examine him. MWH is further investigating how the incident may have been prevented.

No other incidents occurred at the Site.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating again at approximately 40 gallons per minute (gpm). The system was operating at 15 gpm while the heat exchanger was installed on November 4. The GWTP returned to normal flow rates on November 5. Normal operation will include utilizing the new heat exchanger in T-2 until the temperature in the activated sludge plant reaches 80 degrees F or above.

The pumping and control equipment for monitoring wells MW-10C and MW-56 has been installed. Each of the wells are currently operating at two gpm. Final instrumentation and controls will be completed on November 7. The flow from the wells will be adjusted periodically based on well levels.

In-Situ Vapor Extraction (ISVE) System - Off-Site Area

The Off-Site Area ISVE system was restarted on November 4 after being extensively repaired. Nineteen wells are currently in operation after more than three days of continuous operation. The initial peaks of influent vapor concentrations have begun to decrease, allowing MWH to operate the system without diluting the system flow with fresh air. MWH has confirmed that the system's safety features are working correctly and the thermal oxidizer is cooling itself correctly.

MWH will conduct an maintenance examination of the thermal oxidizer in a few weeks to confirm the unit is not being corroded or damaged again through operation.

On-Site Still Bottoms Pond Area (SBPA) Interim Engineered Cover

HHSI began installation of geotextile fabric for the access road and catch basins on November 4. HHSI completed installation of the gravel road and parking lot on top of the geotextile fabric on November 6.

MWH and HHSI performed a site walk to identify remaining items needing completion. HHSI needs to complete a final survey of the top of clay elevation to confirm clay thickness around the Site and add additional clay if necessary. HHSI needs to complete work around the perimeter drainage catch basins that include flexible membrane liner (already installed), geotextile fabric (already installed), bentonite grout to seal around the catch basins, and gravel. HHSI needs to cleanup and smooth the clay cover surface to remove any voids or pitting. Finally, MWH plans to have Great Lakes Soil and Environmental Consultants test the density of the installed gravel road.

In the region around the ACS facility break room (north-central portion of interim cover area) buried debris and building support issues prevented the cover extents from tying in at the design elevation in a small area. Consequently, immediately around the break room the gravel thickness will be reduced prior to installing asphalt as part of the final cover during 2003.

On-Site Area ISVE System

As of November 11, BLA has completed the installation of the six air sparge wells, 11 of the 25 soil vapor extraction wells, and six of the 21 dual-phase extraction wells. A total

of 29 wells remain. During installation of one of the dual-phase extraction wells, the three-inch diameter perimeter water conveyance line installed by HHSI was damaged. Plans for repairing the line are being finalized. Barring delays due to weather or other circumstances, BLA estimates that they will complete the well installation by November 20.

During installation of the air sparge wells, BLA did not encounter clay at the air sparge well design depth of 620 feet below ground surface (bgs) as anticipated based on previous Site data. Given the variance in clay depth across the Site, however MWH decided to install the wells at the design depth instead of attempting to install them deeper in the ground. This is valid since the original depth to elevation 620 feet bgs was based on documentation that the contamination was located above that elevation.

In the work area, BLA has detected sustained volatile organic compound (VOC) air monitoring readings around 20 parts per million (ppm), with peaks of 200 to 500 ppm when the meter is placed directly adjacent to the soil cuttings. The highest readings, indicating the greatest VOC concentrations, have been noted from material located five to six feet bgs. Therefore, it is appropriate that BLA personnel inside the exclusion zone continue to work in Level B PPE with supplied air. The soil cuttings, mostly sand, are placed in roll-off boxes after each well is completed. The roll-off boxes are included in the exclusion zone by caution tape.

The vapor and compressed air conveyance pipe installation is anticipated to begin in November.

Residential Well Sampling

MWH resampled one residential well on October 24 in order to confirm the accuracy of the initial analytical results from the September sampling. Preliminary results reported by the laboratory indicate that the water sample did not contain any detectable organic compounds.

Looking Ahead

Week of November 11, 2002	<ul style="list-style-type: none">• GWTP/ISVE operation• HHSI completes work on site• BLA continues drilling ISVE wells• Damaged three-inch conveyance line will be repaired
Week of November 18, 2002	<ul style="list-style-type: none">• GWTP/ISVE operation• HHSI demobilizes• BLA completes work
Health and Safety Items to Monitor	<p>On-Site Interim Engineered Cover</p> <ul style="list-style-type: none">• Communication between ACS facility, HHSI, and BLA <p>On-Site ISVE Well Installation</p> <ul style="list-style-type: none">• Drilling safety, including potential of debris just below ground surface• Air Monitoring (including Level B PPE) including potentially explosive conditions• Establishing and maintaining exclusion zones• Soil Cuttings Management• Awareness and marking of locations where drilling refusal has been experienced

Next Weekly Construction Meeting

- Thursday, November 14, 2002

TMK/TAL/PJV/RAA

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Weekly Oversight Summary Report No. 89
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of November 11, 2002

BVSPC O/S Dates: November 12 and 14, 2002 (Ms. Clark and Mr. Campbell)

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	6	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Boart Longyear & Associates	4	ONCA SBPA ISVE Well Driller
Hard Hat Services, Inc.	2	ONCA SBPA Interim Cover Contractor
Great Lakes Soil & Environmental Testing	1	ONCA SBPA Interim Cover Geotechnical Testing
Austgen	1	Electrical Contractor

Construction Activities

Major Activities:

- Boart Longyear & Associates completed installing the On-Site Containment Area in-situ soil vapor extraction system wells and demobilized from the site.
- Boart Longyear & Associates damaged and repaired piezometer P-36.
- Hard Hat Services, Inc. completed installing the On-Site Containment Area Still Bottoms Pond Area interim cover and demobilized from the site on November 12, 2002.
- Montgomery Watson Harza ceased operating the Off-Site Containment Area in-situ soil vapor extraction system temporarily on November 12, 2002, in order to make adjustments to the caustic feed system.
- Montgomery Watson Harza began pumping from MW-56 and MW-10C.
- Austgen assisted Montgomery Watson Harza in removing the sand lift pump from the sand filter in the groundwater treatment plant.
- Montgomery Watson Harza held the weekly construction coordination meeting.

Activities Performed:

Boart Longyear & Associates (BLA) completed installing the On-Site Containment Area (ONCA) in-situ soil vapor extraction (ISVE) system wells. BLA continued air monitoring using the photoionization detector (PID) and an oxygen and lower explosive limit meter and performed drilling activities in Level B personal protective equipment. BLA reported that it encountered buried debris and fencing during drilling activities.

BLA continued to place drill cuttings in the lined and tarped rolloff boxes and performed air monitoring around the rolloffs. BLA decontaminated its equipment on November 15, 2002, and demobilized from the site.

MWH reported that BLA damaged piezometer P-36 on November 1, 2002, and repaired the piezometer on November 6, 2002. MWH reported that it would have Area Survey resurvey the elevation of P-36 and MW-10C.

MWH contracted with Independent Environmental Services (IES) for the repair of the damaged 3-inch-diameter groundwater conveyance piping and for the installation of the ONCA ISVE yard piping. MWH reported that the yard piping will be installed on top of the clay layer, rather than under the clay layer as designed in the Final Remedial Design Report. IES is scheduled to begin work during the week of November 18, 2002.

MWH reported that it contracted with Midwest Environmental, Inc. (MEI) to bury the drill cuttings from the ONCA ISVE well installation under the ONCA clay cover, inside the ISVE area.

Great Lakes Soil & Environmental Testing tested the compaction of the gravel road installed on the ONCA. MWH reported that the compaction met its requirements of 90% compaction. Hard Hat Services, Inc. (HHSI) completed installing the cover at the storm drains and smoothed the clay cover. HHSI demobilized from the site on November 12, 2002. MWH reported that it was reviewing the survey data for the clay cover in order to confirm the thickness of the clay.

MWH reported that it did not receive an update on the status of the Area Survey crewmember who injured his knee last week. MWH reported that it would check with Area Survey on his status.

MWH reported that it had observed ACS personnel using the gravel road that bisects the ONCA exclusion zone. MWH reported that it would remind ACS personnel to not enter the exclusion zone and work area.

MWH reported that the OFCA ISVE system was operating since November 4, 2002, until November 12, 2002, when MWH shut the system down for adjustments to the caustic feed system. MWH resumed operating the system and reported that it will schedule a shut down in the near future in order to inspect the thermal oxidizer and scrubber.

MWH reported that the groundwater treatment plant (GWTP) was operating at 30 gpm. The rate was reduced during the week in order for MWH to perform maintenance on the sand filters. Austgen assisted MWH in removing the sand lift pump from the sand filter for maintenance. MWH reported that it expected the rate of the GWTP to reduce as the amount of water available to be extracted from the Barrier Wall Extraction System is reduced. Austgen completed installing the control system for MW-56 and MW-10C. MWH also reported that it began pumping 1 gpm from MW-56 and 0.5 gpm from MW-10C.

MWH held the weekly construction coordination meeting on November 14, 2002.

Topics of Concern:

- An Area Survey crewmember twisted his knee in a partially backfilled borehole on November 7, 2002.

Concern Resolution:

- The Area Survey crewmember who twisted his knee left the site and visited a doctor on November 8, 2002. MWH reported that it would follow up with Area Survey and file an incident report.

Upcoming Activities:

- Area Survey to resurvey P-36 and MW-10C.
- IES to repair 3-inch-diameter groundwater conveyance piping and to install the ONCA ISVE yard piping.
- MEI to bury drill cuttings under the ONCA clay cover.

Signatures: Margaret Clark, Larry Campbell

Date: November 20, 2002

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**WEEKLY CONSTRUCTION MEETING AGENDA
FOR NOVEMBER 14, 2002 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: Thursday, November 14, 2002

MEETING TIME: 10:00 am

MEETING LOCATION: ACS Site – Site Trailer

TOPICS:

Health and Safety Summary (Lee)

GWTP Status (Lee)

- Current flow rate
- Heat exchanger installation.

Off-Site ISVE System (Chris/Todd)

- System operation

SBPA ISVE Well Installation (Chad/Boart)

- Status
- Look head schedule

On-Site Interim Cover (Todd/Rob/Hard Hat)

- Punch list
- Demobilization

SBPA ISVE Yard Piping (Todd)

- Punch list

Looking Ahead

Week of...	Task
November 18	<ul style="list-style-type: none">• GWTP system operation• SBPA ISVE well installation• SPBA ISVE yard piping
November 25	<ul style="list-style-type: none">• GWTP system operation• SPBA ISVE yard piping
Health and Safety Look Ahead	<ul style="list-style-type: none">• Drilling activities• SPBA ISVE yard piping

Next Weekly Construction Meeting

- Thursday, November 14, 2002

SIGN IN SHEET
WEEKLY CONSTRUCTION MEETING
November 14, 2002

Name	Company	Fax Number
ROBERT ADAMS	MWH	630-836-8959
TODD LEWIS	MWH	" "
Chad Smith	MWH	630 "
Bill Stuckey	Boart Longyear	317-784-2035
Larry Campbell	BUSPC	312-346-4781
LEE ORDS	MWH	219-924-4561
Peter Vast	MWH	630 836 8959
CHRIS DARY	MWH	630-836-8959

KEVIN ADLER (PHONE)	USEPA
JON POHL (PHONE)	MWH
TRAVIS KLINGFORTH (PHONE)	MWH
TOM TINICS (PHONE)	MWH

**WEEKLY CONSTRUCTION MEETING MINUTES
FOR NOVEMBER 14, 2002 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: November 14, 2002

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES: Todd Lewis – MWH
Peter Vagt – MWH
Rob Adams – MWH
Lee Orosz – MWH
Chris Daly – MWH
Chad Smith – MWH
Jon Pohl – MWH (via phone)
Tom Tinics – MWH (via phone)
Travis Klingforth – MWH (via phone)
Kevin Adler – U.S. EPA (via phone)
Larry Campbell – BVSPC
William Stuckey – Boart Longyear

TOPICS:

Health and Safety Summary

No health and safety incidents occurred at the Site since the last weekly meeting on November 11. Boart Longyear & Associates (BLA) has filled one roll-off box with soil cuttings and is beginning to fill a second roll-off box. BLA has monitored the roll-off box and no volatile organic compound (VOC) readings are detected when the box is covered.

During the week of November 4, a crewmember of Area Survey potentially injured his knee by stepping into a depression while walking between survey sites. MWH is following up to see what is the crewmember's current condition.

The filter press in the groundwater treatment plant (GWTP) was pressure washed during the week of November 11. Also, the sand filter pump was removed, cleaned, and replaced. Both of these events were completed successfully.

ACS facility personnel have been observed using the gravel road bisecting the exclusion zone as a short cut. MWH will remind ACS facility workers not to enter the work area.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at approximately 30 gallons per minute (gpm). This rate has been reduced for several days due to recent maintenance performed on the sand filter. The GWTP will return to the normal flow rate of 40 gpm on November 15. The overall flow rate of the system is expected to decrease in the near future as less water is able to be extracted from the Barrier Wall Extraction System (BWES) as dewatering progress is achieved.

Installation of the new heat exchanger in T-2 is complete. Water temperature is the activated sludge plant is currently 56 to 70 degrees F at night.

The pumping and control equipment for monitoring wells MW-10C and MW-56 has been completed. MW-10C is currently operating at 0.5 gpm. MW-56 is currently operating at 1.0 gpm.

In-Situ Vapor Extraction (ISVE) System – Off-Site Area

The Off-Site Area ISVE system was restarted on November 4 after completing the thermal oxidizer/scrubber repairs. The system has run well for ten days, with an average temperature of 1650 degrees F. The system was shut down briefly during the week of November 11 for minor adjustments.

MWH will conduct a maintenance examination of the thermal oxidizer when operating trends allow to confirm the unit is not being corroded or damaged again through operation. This examination may be conducted when MWH switches operation to a new sub-set of ISVE wells.

On-Site Still Bottoms Pond Area (SBPA) Interim Engineered Cover

Hard Hat Services, Inc. (HHSI) has completed installation of the On-Site Area Interim Engineered Cover. MWH and HHSI performed a site walk to identify remaining items needing completion during the week of November 4. During the week of November 11, the remaining items were completed. HHSI completed a final survey of the top of clay elevation to confirm clay thickness around the Site. The survey is being reviewed to confirm that no additional clay needs to be placed. HHSI completed work around the perimeter drainage catch basins including: flexible membrane liner, geotextile fabric, bentonite grout to seal around the catch basins, and gravel. HHSI cleaned up and smoothed the clay cover surface to remove any voids or pitting. Finally, Great Lakes Soil and Environmental Consultants tested the density of the installed gravel road and found it acceptable.

On-Site Area ISVE System

As of November 14, Boart Longyear & Associates (BLA) had completed the installation of 45 of the 52 total wells for the On-Site Area ISVE system. One dual-phase well and six SVE wells remain. Well installation is expected to be completed by November 15. Decontamination and demobilization will be completed during the week of November 18. Repair of the three-inch diameter perimeter water conveyance line damaged during well

installation will be completed as part of the vapor and compressed air conveyance piping installation described below.

In the work area, BLA has detected sustained volatile organic compound (VOC) air monitoring readings around 20 parts per million (ppm), with peaks of 200 to 500 ppm when the meter is placed directly adjacent to the soil cuttings. Therefore, it is appropriate that BLA personnel inside the exclusion zone continue to work in Level B PPE with supplied air. Perimeter air monitoring has indicated no VOCs.

MWH has confirmed the depth to water in a few of the newly-installed wells. The current groundwater elevation is at approximately 630 feet above sea level (10 to 13 feet below ground surface). The target water level, after dewatering, is 627 feet.

Piezometer P-36 was damaged by BLA on November 1 and repaired on November 6. BLA has repaired the piezometer and it has been approved by MWH. It will be resurveyed by Area Survey, along with monitoring well MW10C.

The vapor and compressed air conveyance pipe installation for the ISVE system will be installed by Independent Environmental Services (IES) at the direction of MWH. IES will begin during the week of November 18. Midwest Environmental Services (MEI) will place the soil cuttings from the ISVE well installation underneath a portion of the interim clay cover inside the ISVE area.

The work is planned to take three weeks and will connect the existing water and air conveyance piping to each of the dual-phase wells. Geotextile fabric will then be installed across the area and vapor conveyance piping installed between each well and the future blower shed location. After the piping installation is complete, gravel will be placed over the entire area for the winter.

Looking Ahead

Week of November 18, 2002	<ul style="list-style-type: none">• GWTP/ISVE operation• BLA demobilizes• Damaged three-inch conveyance line will be repaired• IES begins to install vapor conveyance piping
Week of November 25, 2002	<ul style="list-style-type: none">• GWTP/ISVE operation• Continue to install vapor conveyance piping
Health and Safety Items to Monitor	<p>On-Site ISVE Well Installation</p> <ul style="list-style-type: none">• Demobilization <p>On-Site ISVE Vapor Piping Installation</p> <ul style="list-style-type: none">• Air monitoring for intrusive work• Welding pipe

Next Weekly Construction Meetings

- Thursday, November 21, 2002 – following this meeting, MWH, the U.S. EPA, and Black & Veatch will discuss the recent U.S. EPA comments regarding multiple construction completion reports.
- Date and time of weekly meeting during week of November 25 is yet to be determined due to Thanksgiving holiday.

TMK/RAA/PJV/TAL

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Weekly Oversight Summary Report No. 90
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of November 18, 2002

BVSPC O/S Dates: November 22, 2002 (Ms. Peters)

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	2	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Independent Environmental Services	4	ONCA SBPA ISVE Yard Piping Contractor
Ryan Construction	1	General Contractor
Austgen	1	Electrical Contractor

Construction Activities

Major Activities:

- Independent Environmental Services repaired the On-Site Containment Area Still Bottoms Pond Area groundwater conveyance piping near SVE-46.
- Austgen began making the sweeps for the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system piping.
- Montgomery Watson Harza held the weekly construction coordination meeting.

Activities Performed:

Montgomery Watson Harza (MWH) reported that Independent Environmental Services (IES) repaired the 3-inch-diameter groundwater conveyance pipe that was damaged by Boart Longyear & Associates during the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) well installation on November 22, 2002. IES pressure tested the groundwater conveyance pipe and observed that there were two other areas where the pipe had been damaged during drilling activities. IES will excavate these locations next week to repair the line. MWH reported that IES will continue to conduct air monitoring with the photoionization detector during installation activities and that it will be inerting the wells prior to drilling holes in the wells for the connections. MWH reported that the yard piping installation activities are expected to take approximately 2 weeks. Austgen began making the sweeps for the ONCA SBPA ISVE yard piping.

MWH reported that it postponed Midwest Environmental, Inc. (MEI) burying the drill cuttings until after IES has completed tapping the ONCA SBPA ISVE wells and installing the yard piping. Black & Veatch

Special Projects Corp. (BVSPC) inquired whether MWH was monitoring the drill cutting rollofs. MWH reported that it would begin monitoring the rollofs for vapors and to ensure that the tarps are secure.

MWH reported that Ryan Construction will pour the ONCA SBPA ISVE system blower shed foundation and a concrete slab at the groundwater treatment plant (GWTP) next week. The concrete slab at the GWTP is being poured to house the future thermal oxidizer for the ONCA SBPA ISVE system. BVSPC observed Ryan Construction placing concrete blankets in each location in order to prevent frost in those areas.

MWH reported that the Off-Site Containment Area ISVE system continued to operate, pulling vapors from 17 wells. MWH also reported that the GWTP was operating at 30 gpm, pulling water from the ONCA and OFCA extraction wells and the Perimeter Groundwater Containment System. MWH reported that the flow rate of the GWTP is limited by the water available for extraction; however, MWH expected the rate to increase when the ONCA SPBA dual phase extraction wells are brought on-line. MWH reported that there are no upcoming maintenance activities for the GWTP.

MWH reported that the crewmember from Area Survey that was injured on November 8, 2002, was checked out by the doctor and was cleared to return to work on November 11, 2002. MWH reported that it will complete its incident report.

MWH held the weekly construction coordination meeting on November 21, 2002. BVSPC attended the weekly construction coordination meeting at MWH's Warrenville office.

Topics of Concern:

- An Area Survey crewmember twisted his knee in a partially backfilled borehole on November 7, 2002.

Concern Resolution:

- The Area Survey crewmember who twisted his knee left the site and visited a doctor on November 8, 2002. MWH reported that it had followed up with Area Survey and will file an incident report.

Upcoming Activities:

- Area Survey to resurvey P-36 and MW-10C.
- IES to repair 3-inch-diameter groundwater conveyance piping and to install the ONCA SBPA ISVE system yard piping.
- Ryan Construction to pour concrete slab and ONCA SBPA ISVE system blower shed foundation.
- MEI to bury drill cuttings under the ONCA clay cover.

Signature: Leigh Peters

Date: December 2, 2002

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**MWH**

MONTGOMERY WATSON HARZA

By TMK Date 11/21/02 Client ACS Sheet 1 of 1
Chkd. By _____ Description Weekly Construction mtg. Job No. _____

• Participants : (@ Warrenville, IL)

Travis Klingforth - MWH

ROBERT ADAMS - MWH

Kevin Adler - USEPA.

Larry Campbell BUSPL

Leigh Peters BUSPL

Chad Smith MWH

TODD LEWIS MWH

PERE VAGT. MWH

• AT SITE (Gifford, IN)

Chris Daly - MWH

Lee Orosz - MWH

**WEEKLY CONSTRUCTION MEETING MINUTES
FOR NOVEMBER 21, 2002 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: November 21, 2002

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS Site – Site Trailer and MWH Warrenville Office

ATTENDEES: At the Site Construction Office

Lee Orosz – MWH

Chris Daly – MWH

Participating by Phone from the MWH Warrenville Office

Todd Lewis – MWH

Peter Vagt – MWH

Rob Adams – MWH

Chad Smith – MWH

Travis Klingforth – MWH

Kevin Adler – U.S. EPA

Larry Campbell – BVSPC

Leigh Peters - BVSPC

TOPICS:

Health and Safety Summary

No health and safety incidents occurred at the Site since the last weekly meeting on November 14.

During the week of November 4, a crewmember of Area Survey potentially injured his knee by stepping into a depression while walking between survey sites. According to Area Survey, the crewmember missed one day of work to see a doctor, but is fine and has returned to work.

Independent Environmental Services (IES) began work on the On-Site Area ISVE vapor conveyance piping system on November 21. IES conducted its first tailgate health and safety meeting on November 21. The IES health and safety plan is on site, including all necessary paperwork for their four member crew.

Boart Longyear and Associate (BLA) completed installation of the On-Site Area ISVE wells on November 15. BLA decontaminated their equipment on the On-Site Area decontamination pad. Liquids were collected in the sump and pumped to the Groundwater Treatment Plant for treatment. Solids were collected and placed into the

roll-off boxes with other soil cuttings generated from the well installation. Daily air monitoring will be performed around these roll off boxes with a photoionization detector (PID) for volatile organic compounds (VOCs).

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at approximately 30 gallons per minute (gpm) which is the rate at which the extraction system can deliver water to the system at the current time. The overall flow rate of the system has decreased over the past few months as the water level inside the barrier wall has been lowered and less water can be extracted from the Barrier Wall Extraction System (BWES).

The heat exchanger in T-2 is inline and warming the water temperature of the influent water prior to entering ME-101. Water temperature in the activated sludge plant is currently 62 degrees F, approximately ten degrees warmer than would normally be expected at this time of year.

In-Situ Vapor Extraction (ISVE) System - Off-Site Area

The Off-Site Area ISVE system was restarted on November 4 after the thermal oxidizer/scrubber repairs were completed. The thermal oxidizer unit continues to operate well, with an average temperature of 1650 degrees F. Seventeen SVE wells are currently on-line. The thermal oxidizer requires supplemental natural gas to operate at the currently selected operating temperature. MWH is exploring options to optimize efficiency by finding a slightly lower operating temperature that will require little or no supplemental gas and yet still meet the discharge requirements for the system.

On-Site Area ISVE System

On November 15, BLA completed the installation of the 52 wells for the On-Site Area ISVE system. BLA performed decontamination and demobilization on November 15. IES will repair the three-inch diameter perimeter water conveyance line damaged during the well installation. (This is not an active water conveyance line at this time. It is the three-inch conveyance line installed by Hard Hat Services Inc. It was installed during October to be the line that will take water from the perimeter dual phase ISVE wells to the treatment plant.) The repair will be conducted as part of the vapor and compressed air conveyance piping installation described below.

All work by BLA was performed in Level B personal protective equipment (PPE). No VOCs were noted outside the exclusion zone/work area. BLA encountered some debris during drilling at several of the 52 locations. BLA needed to relocate three wells: SVE-49 and SVE-52 were relocated due to auger refusal and SVE-46 was relocated when the three-inch perimeter water conveyance line was damaged by the well installation.

The vapor and compressed air conveyance pipe installation for the ISVE system will be installed by Independent Environmental Services (IES) at the direction of MWH. IES began on November 21. They will begin by repairing the three-inch perimeter water conveyance line damaged by BLA. After pressure testing the line to confirm there are no other leaks, each well will be connected to the recently installed water and air

conveyance piping. IES will temporarily plug and inert each well prior to tapping into it and use a PID and O₂/LEL meter to monitor the wells for explosive environments, and confirm safe working conditions.

Geotextile fabric will then be installed across the area and vapor conveyance piping will be installed between each well and the future blower shed location. After the piping installation has been completed, gravel will be placed over the entire area for the winter. The work is expected to take three to four weeks.

Midwest Environmental Services (MES) will place the soil cuttings from the ISVE well installation underneath a portion of the interim clay cover inside the ISVE area during IES' work. MWH will regularly monitor these soil cuttings stored in two covered roll-off boxes for VOCs. Daily air monitoring of the roll off boxes will be performed as discussed above. Air monitoring will also be performed during all intrusive work in the cover area.

The concrete slab for the blower shed is scheduled to be poured November 26, weather permitting. The mud slab and forms will be set up prior to pouring.

The future thermal oxidizer to be installed for the On-Site Area ISVE system will be placed on a new 10 ft by 20 ft reinforced concrete pad to be laid directly west of the current thermal oxidizer pad in the GWTP. The new unit will be a 2,000 standard cubic feet per minute (scfm) induced-draft unit.

Looking Ahead

Week of November 25, 2002	<ul style="list-style-type: none">• GWTP/ISVE operation• Repair damaged three-inch conveyance line• IES begins to install vapor conveyance piping• Concrete pour for blower shed• NO SITE WORK ON NOVEMBER 28 OR 29 DUE TO THANKSGIVING
Week of December 2, 2002	<ul style="list-style-type: none">• GWTP/ISVE operation• Continue to install vapor conveyance piping
Health and Safety Items to Monitor	On-Site ISVE Vapor Piping Installation <ul style="list-style-type: none">• Inerting wells• Air monitoring for intrusive work• Welding pipe• Slips, trips, falls• Coordination with Ryan and Austgen workers

Next Weekly Construction Meetings

- 10 a.m., Monday, December 2, 2002
- 10 a.m., Friday, December 6, 2002

TMK/pjw/RAA

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Weekly Oversight Summary Report No. 91
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of November 25, 2002

BVSPC O/S Dates: November 26, 2002 (Mr. Campbell)

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	2	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Independent Environmental Services	3	ONCA SBPA ISVE Yard Piping Contractor
Ryan Construction	5	General Contractor
Austgen	2	Electrical Contractor

Construction Activities

Major Activities:

- Independent Environmental Services repaired the groundwater conveyance piping and began installing the saddles on the wells for the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system piping.
- Ryan Construction placed gravel and the mud slab for the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system blower shed slab.
- Ryan Construction poured the concrete slab at the groundwater treatment plant for the future thermal oxidizer for the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system.
- Montgomery Watson Harza postponed the weekly construction coordination meeting because of the Thanksgiving Holiday.

Activities Performed:

Independent Environmental Services (IES) completed repairing the 3-inch-diameter groundwater conveyance pipe that was damaged near SVE-46 by Boart Longyear & Associates during the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) well installation. IES proceeded to repair the two other locations where damage was observed in the groundwater conveyance piping and successfully pressure tested the piping. The locations where additional damage had occurred were located at the 1-inch-diameter whips that extend off of the main 3-inch-diameter line.

IES began installing the pitless adaptors and saddles for the dual phase extraction wells. IES inerted the wells using an inflatable plug and nitrogen. IES measured the oxygen level and the lower explosive limit prior to drilling into the wells. IES also performed continuous air monitoring using a photoionization detector (PID), and personnel wore half-face respirators while working in the excavation.

Austgen began fabricating the elbows for the ONCA SBPA ISVE system yard piping. Montgomery Watson Harza (MWH) and Ryan Construction installed the stubups for the ONCA SBPA ISVE system blower shed for the yard piping. Ryan Construction later placed gravel and the mudslab for the ONCA SBPA ISVE system blower shed foundation on November 27, 2002. Ryan Construction placed concrete blankets on the gravel in order to prevent frost and freezing until the concrete can be poured. Ryan Construction also poured the concrete slab for the future ONCA SBPA ISVE system thermal oxidizer at the groundwater treatment plant (GWTP).

MWH continued to operate the Off-Site Containment Area (OFCA) ISVE system. MWH installed placarding on the OFCA thermal oxidizer and scrubber units to warn of the elevated temperatures associated with these units.

MWH also reported that the GWTP was operating at 25 gpm, pulling water from the ONCA and OFCA extraction wells and the Perimeter Groundwater Containment System. MWH reported that the flow through the GWTP is limited by the water available in the extraction systems. MWH also reported that there were no upcoming maintenance activities for the GWTP.

MWH postponed the weekly construction coordination meeting to December 2, 2002, because of the Thanksgiving Holiday.

Topics of Concern:

- None to report.

Concern Resolution:

- None to report.

Upcoming Activities:

- Area Survey to resurvey P-36 and MW-10C.
- IES to continue installing the ONCA SBPA ISVE system yard piping.
- MEI to bury drill cuttings under the ONCA clay cover.
- Ryan Construction to pour the ONCA SBPA ISVE system blower shed foundation.

Signature: Larry Campbell

Date: December 2, 2002

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(74)

11/5/02

Jeff Peters

0715 Arrive on-site. Overcast, light drizzle,
46 °F

Personnel Present:

Lee Dross	MNH
Mike Petrich	HHSI
Kevin O'Brien	BLA
Dave Juedes	BLA
Jerry Clark	Ryan
Doug Drinnan	HHSI
Dan Petrich	HHSI
Chad Smith	MNH
✓ Bill Stuckey	BLA
✓ Daniel Harrison	BLA
✓ Alan Thomas	BLA
Terrence Jones	HHSI
Laird Peters	DVSPC
Tom Thies	MNH

Today's Activities:

- ①. HHSI to construct road
- ②. BLA to continue drilling
- ③. Ryan installing heat exchanger

Spoke w/C. Smith. BLA hit 3" & HDPE conveyance line. Line was pressurized when hit. 35 wells remain for installation. PID readings high at outcrops and borehole

Jeff Peters

(75)

11/5/02

Jeff Peters

But PID readings 41 ppm at perimeter of exclusion zone. BLA tracking wind and changing exclusion zone as necessary.

0735 Roll 31 Photo 18 facing NW in GWTP showing heat exchanger in tank T-2.

0740 Spoke w/T. Thies - OFCA ISV system on-line since yesterday night pulling from group of OFCA wells with 75% dilution at blower shed. MNH replaced temp probe located below packing and spray nozzle. Pending successful operation this week. Simulants to collect air gas sample.

0800 Walked to DNCA - HHSI constructing road and placing gravel. BLA setting up to drill wells. Spoke with M. Petrich - he reported that if weather holds, road to be completed by tomorrow.

0810 Roll 31 Photo 19 facing N showing road, gravel and AS point.

0815 Spoke with C. Smith, BLA hit 3 inch HDPE at SV6-46. Observed BLA drilling. C. Smith reported that he logged his wells and some perimeter DPE wells to investigate subsurface. AS probes down to 24 feet but did not encounter clay. Remainder probes

(76)

11/5/02 *J. H. P. R.*

shallower and no clay. MWH noted contamination above 15 feet (visually stained) and will place wells as designed, not specifically to bottom of sand layer before clay.

Smith reported hit at PWB for bis-2-ethyl hexyl phthalate.

0840 Roll 31 Photo 20 facing S showing B&B setting screen and riser for DPE well SVE79. Well 6 inch dia Sch 40 SS

0855 Rain getting heavier. HHSI can continue work. B&B to dig and move locations but may damage cap.

0905 Roll 31 Photo 21 facing east showing HHSI compacting gravel

0930 Roll 31 Photo 22 facing W showing B&B placing sand packs in SVE 49, SVE 49 redrilled in new location after hitting 3 inch HDPE line.

1015 T. Tunks reported that HHSI to repair the damaged HDPE line. Ryan Construction to complete installing the heat exchanger today and Mustang to install motor this afternoon. T. Tunks also reported that MWS6 and MWS6C not connected, waiting on float switches. Also reported that he walked

(77)

11/5/02

J. H. P. R.

OFLA after rain last week and did not observe any ponding water, other than what has been observed near EW20C. MWH reported that it would not likely perform maintenance until next year. MWH also reported that HHSI & Independent Environmental Services to connect the yard piping for the DNCA ISVE system mid-November. MWH reported that it would perform air monitoring, but the work should not be intrusive to connect to the well.

1100 left site for day

J. H. P. R.
11/5/02

58

stationer and no clay. MWH noted construction above 15 feet a (visually stained) and will place cells as designed, not specifically to bottom of sand layer before clay.

11/10/02

(79)

11/7/02

Lyb E. Peters

0720 Arrive on-site, clear, 40°F, light SE breeze

Personnel Present:

* Lee Orosz MWH

Terry Frisk Ryan

Jerry Clark Ryan

Don Petrich HHS 1

Lane De Bantolo HH51

Chris Harrist BLA

Kevin O'Brien BLA

Dave Judas BLA

* Bill Stuckey BLA

Chad Smith MWH

David Harrison BLA

Alan Thomas BLA

X Todd Lewis MNH

* Leigh Paters BVSPC

0730 Spoke with T. Timies. He reported DECA ISVE system still running - Signals to collect compliance sample today or tomorrow. He also reported Heat exchanger working - water sent from T-2 to biotank at 80°F. I asked if MWH had training certs for Lane (HHSI) he said that HHSI providing copy to L. Dross. T. Timies checked certs this morning. T. Timies also reported that HHSI to repair damage to 3 inch pipe

High Education

(80)

11/7/02

Jeff E. Pitzer

over next few days.

0750

Went to DNCA to observe BLA. C. Smith reported no drilling yesterday, 31 wells left to install. C. Smith reported that AS points probed to 24 ft - did not encounter clay but BLA had difficulties probing the final interval - sands were brought in, skewed sample but C. Smith reported possibly hit clay but dense sands pushed out. Perimeter probes to 20 ft depth - no clay. Stained soils from 5-15 ft bgs, PID readings in 1,000's ppm. RD below visual impacted in the 30ppm range. MNH decided to install at design depth since screens below visual contamination for AS wells, depth of DPE wells below contamination - no visual impacted soil at south wells along perimeter. C. Smith also reported that the clay was supposed to be encountered around 20' elev. I asked C. Smith if H+S carts for Dave Juades. C. Smith immediately asked B. Struckey. B. Struckey to look into.

0815

Roll 31 Photo 23 facing S of HHS1 adding more clay to bag.

0825

Bill Struckey reported that BLA submitted
Jeff E. Pitzer

(81)

11/5/02

Jeff E. Pitzer

H+S carts for wrong person - not D. Juades. Bill Struckey said that D. Juades will not be allowed to work until carts are fixed this morning.

0830 - BLA started drilling with one rig - continuing to install 6-inch DPE wells along RR tracks. Second rig not starting until H+S cart on site for D. Juades.

0835 - Received H+S carts for D. Juades. BLA perimeter air monitoring with PID, CO, O₂, LEL meter at rig.

0900 Roll 31 Photo 24 facing N showing BLA drill SVE-59 - 4-inch screw well.

BLA reported PID = 0 ppm at perimeter of exclusion zone, PID = 18.7 ppm at bore hole and 45 ppm at spoils for SVE-59.

0915 Observed BLA place sand pack and complete DPE well SVE 80. C. Smith reported BLA not grouting walls, only placing bentonite chips and hydrating because yard piping needs to be connected and will require grouting.

0940 Roll 31 Photo 25 facing SW showing BLA exclusion zone and decontam at SVE-80.

1000 Weekly Construction meeting:

Attendees - * on previous plus:

Jeff E. Pitzer

(82)

11/7/02

J. E. P. R.

Rob Adams MNH Tom Tines MNH
 Claudia Stask KN+M Peter Vagt MNH
 Barbara Mager KN+M
 Travis Kingfarth MNH (via phone)
 John Pohl MNH (via phone)
 Stu Russell HHSI (via phone)

H+S: no incidents until this morning - Area Survey personnel stepped where hole abandoned + twisted knee - to see doctor and stopped work. BLA to mark location and will run over any abandoned holes to ensure that they are stable. Pump seal leaking at scrubber - slightly acidic pH. BLA + MNH did not have H+S documentation for a BLA personnel. MNH was not aware and will pay better attention.

GWTP: Running at 40 gpm except for when heat exchanger installed - op at 15 gpm to keep flow through plant. Exchanger installed w/ diffusers and T-2 should not have sludge buildup. MWDC + MW56 installed and pumping - Austgen to install controls to ensure not pumped dry.

DECAISVE: 19 wells on-line MNH performing daily PSVP monitoring for one week and

(83)

11/9/02

J. E. P. R.

to proceed with weekly PSVP monitoring. Simalabs to collect compliance sample Fri. MNH to schedule shut down in 4 weeks to inspect unit. Operating with plastic packing. JBPA cover: HHSI finished road - MNH to test compaction. Area Survey shooting top of clay to confirm 12" thickness. HHSI placing clay in areas of spalling. HHSI to complete FML around storm piping and seal with bentonite at drain since FML not welded.

JBPA well: 6-AS, 11 of 25 ISVE, 6 of 21 DPE 5-6 drilling days left. BLA to work 11/9 with one rig. Level B at drilling and roll off. PID readings - 200-500 ppm at cuttings, low 20 ppm at benchmarks. MNH placing ~~gas~~ # wells at design depth - not specifically top of clay. 620 elev of clay from surrounding investigations. Expected to find clay but did not at 620.

PN-B: Resampled 10/25 - results from Compuchem - ND for bis(2-ethylhexyl)phthalate. MNH waiting for report - primary and dup sample.

Look Ahead:

11/11: GWTP, DECAISVE, BLA + HHSI

11/18: GWTP, DECAISVE, BLA, start yard piping

H+S: BLA work; abandoned holes, inserting

J. E. P. R.

(84)

11/7/02

J. E. P.

Wells and air monitoring. Possible confined spaces.

1110 Mtg. adjourn - Next meeting 11/14 @ 1000

1140 Went to ONCA to observe drilling and setting DPE well at SVE-82

1150 Roll 31 Photo 26 facing S of BLA setting SVE-82

1230-1300 Lunch, strong wind from south

1300-1315 spoke with L. Campbell on site activities

1320 Observed BLA establish new exclusion zones to drill on SE portion of SDPA

1330 Roll 32 Photo 1 facing S at ground at abandoned borehole.

1400 Observed BLA drill SVE-86 DPE well

1510 Roll 32 Photo 2 facing NW of BLA placing bentonite pellets at SVE-89.

1515 Left site for day

~~Roll 32 Photos 1-6~~
11/7/02

11/12/2002

Margaret M. Clark

(85)

0745 Arrive onsite. Weather: overcast, 40°F, very little wind.

0800 Observe Boart Longyear drilling in ONCA. Spoke with Chad Smith. On Thurs. were able to install 8 wells & 7 on Friday. Yesterday, they were able to get 2 in due to buried debris slowing down the work. Today, BLY only has 1 rig, but C. Smith thinks the work will be complete this week.

0815 BLY working at SVE-47. Discover metal debris in cuttings. Appears to be remnants of a drum & a chain link fence.

0840 Roll 32 Photo 3 - facing east; BLY working in 6" SVE 47.

0900 Roll 32 Photo 4 facing east. BLY performing air monitoring at SVE 47.

0930 SVE 47 well installed. BLY had some difficulty getting in bit plug at bottom. Would not dislodge. Was supposed to be 21' - bit, but ended up at 20 due to resistance which is suspected to be clay.

1015 Photos 5+6 Roll 32 facing east. Photos of ONCA cap standing on west edge of cap. Photo 5 is North portion; photo 6 is South portion.

Margaret M. Clark

(86)

Margaret M. Clark 11/12/02

PERSONNEL ONSITE

~~Leonard Reed~~ ~~mm~~

Lee Orosz

MWH

Daniel Harrison

BLV

Chris Harrison

BLV

~~Bruce Strubbe~~ ~~mm~~~~BLV~~ ~~mm~~~~Terry~~ Chad Smith

MWH

Tim Veldez

BLV

Alan Thomas

BLV

Tim Kirkland

Austgen

Margaret Clark

BVSRC

1100 Complete installation of SVE 47.

1100-1200 Leave site for lunch.

1230 Spike w/ Lee Orosz re: site activities.

The GWTP is running normally as is the offsite SVE system. On Monday, the thermox & SVE system was shut down temporarily for scheduled maintenance. Some piping was re-routed, the caustic injection point was changed. The one problem is the flowmeter which measures the amount of untreated water back into the system, is not operating correctly. Pipe for the onsite SVE system was delivered today. In the next week, MWH will be assembling 50 (or so) elbows to use

Margaret M. Clark

11/12/02

Margaret M. Clark

(87)

to connect the blower shed piping to the wells. These will be laid before the concrete pad to the blower shed is placed. HHSI still has a little work to do in the ONCA cap. The ACS storm drains along the north edge of the cap that were exposed, still need to be covered. Parts of the exposed pipe have already be re-covered w/ geotextile (per plan). The remainder (just west of the ACS breakroom building) will be covered w/ ~~FLM~~ ^{FLM} layer (2nd layer?) and then gravel. That will complete HHSI work, although they may be used to connect SVE piping to wells.

1245 Spike w/ L. Campbell regarding today's activities.

1300 Photo 7 Roll 32 Facing SE - photo of BLV drilling @ SVE 48.

1326 Photo 8 Roll 32 Facing SE - BLV installing SVE 48 well & performing air monitoring on cuttings.

1330 BLV reports that all PID readings at exclusion zone perimeter have been below 1.0.

Margaret M. Clark

88

Margaret M. Clark 11/12/2002

1400 BLY has to change tanks for air. SVE 48 almost complete.

1415 Photo 9 Roll 32 facing north, standing just west of ACS breakroom in onsite area photo of storm line to be recovered by HH81

1416 Photo 10 Roll 32 facing NE; standing in same spot as above; photo of stormline to be recovered that runs along the west side of ACS breakroom.

1450 BLY completes the installation of SVE 48. Will set up at next location. May begin to drill hole, but will not complete installation today. J. Pohl of MWTH was out in OFCA w/ a sub. to perform compaction testing on gravel road. Took tests in several locations.

1500 Set up at SVE 61. Establish exclusion zone & move equipment to location. C. Smith does not think any more drilling will be done today.

1545 Leave site

~~Margaret M. Clark~~
~~November 12, 2002~~

Margaret M. Clark

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14 NOV 02

0805 LMC arrive onsite

Weg that Overcast, Cool 40° calm

Personnel Onsite

* Lee Orosz	MWH	* Chad Smith
* Bill Stuckey	BLA	Chris Harrison
Dan Harrison	BLA	Allen Thomas
* Chris Daly	MWH	* Todd Lewis
* Larry Campbell	BUSPC	
Tim Kirkland	Avistgen	
* Peter Vogt	MWH	* Rob Adams

0820 visited ONCA where BLA is preparing to install 15VE wells. Discussed progress w/ Chad Smith - only 1 Dual Phase and 6 15VE well remain to be installed - expect to complete well installation by tomorrow.

0900 observed Lee Orosz remove sand lift pump from sand filter - it had plugged. Lee used appropriate climbing harness tied off to fall protection to roof beam. He also had Tim Kirkland assist & observe him to provide help if needed.

1000 Construction Meeting

Attendees - noted above by * plus the following by phone:

Jim Campbell

(96)

11-14-02

Kevin Adler EPA

John Pohl, Tom Timmicks, Travis Klingforth, ^{Watt}• Health & Safety

GWTP - Pressure washed filter press using 3500 psi pump. Will need to modify procedures it do regularly (maybe add more stuff to vent). Pulled sand ^{lift} pump again today - required using body harness & fall protection - standing on top of sand filter. MWH will check status of Surveyor who hurt knee last week when he stepped into an abandoned bore hole where backfill had settled.

• GWTP - has been running @ 40 gpm was shut off this morning to remove sand ^{lift} pump - currently running @ 30 gpm but will be up to 40 gpm later in day. Well ml10C and 56 are pumping at 0.5 and 1 gpm, respectively.

- The heat exchanger installed in Tank T2 is working well. Hot water from thermox circulating to T2 @ 50 gpm w/ loss of $\approx 20^\circ\text{F}$.

- Throughput of GWTP will be declining because of drawn down water table.

Jim Campbell

11-14-02

(91)

level inside barrier wall - just not that much water to remove. Will increase again when ONCA equipment is upgraded.

• OFCA ISVE system has been working well last couple of weeks. Was down some this week to make some minor adjustments. Are still pulling vapors from 2 given set of wells.

• ONCA ISVE Have completed 45 of the planned 52 wells - only 1 Dwell & 6 SVE wells left to install. Expect to complete drilling tomorrow. Will decom & demob

on Friday ^{morning} Monday 11/18/02
Water in some wells $\approx 10'$ bgs at
el 637'-640'

BLA continues to monitor air at perimeter (NO readings) and is breathing zone - at some wells, several hundred ppm was observed.

BLA submittals are complete.

Regulator P36 had been damaged & repaired - Need to re survey blowdowns.

• ONCA Yard Piping

Have received many items - piping, saddles

Jim Campbell

(92)

11-14-02

Have not repaired damaged 3" line
until all drilling is completed
Will start installing conveyance piping next
week using Independent Environmental.
Will install water conveyance piping to dual
phase wells @ 3'-4' depth & backfill.
Then place geofabric. Then install
vapor lines to wells - Then place stone
over conveyance piping.

• ONCA Interim Cover •

Hard hat is complete & has
demonstrated.

Density testing in gravel road way passed.

• Look Ahead

- Run GUTP of OFCA 1500 system
- Complete ONCA 1500 wells
- Start ONCA conveyance w/rt
- rebury drill cutting under ONCA cover
- Keep fencing up @ ONCA until
work has been demonstrated
- Fill in or cover hole where surveyor hurt
- Concern w/ explosive vapors in
drilling into dual phase wells.

10545 mty over

Jim Campbell

11-14-02

(13)

1100 Visited ONCA in MECH to inspect
location of ONCA blower shed. Also
discussed remedy for drill hole where
surveyor was injured - ^{MECH} Selected location
to bury drill cutting.

1230 - 1.00 LUNCH

1430 Photo 11 Roll 32 Looking N at 150E

Well 54 - installation of screen & riser

1440 Photo 12 Roll 32 Looking NE at
150E well 54 placing filter sand

1442 Air monitoring proxima 1.3 ppm
generally < 1 : Soil cuttings @ 300 ppm
at borehole - 600 ppm

1445 Photo 13 Roll 32, Facing East
showing abandoned borehole where
surveyor was injured - back filled to 1' bgs
w/ cement grout. Will complete
backfill with clay

1530 BLA relocated to & started
drilling SUE 53

1600 Rain started. BLA stopped work

1625 LMC left site

Jim Campbell

(94)

11/22/02

J. E. Martin

- 0725 Arrive On-site, cloudy, 35°F, snow forecasted
Light westerly wind
- 0730 Observed MWH and IES hold toolbox
meeting and discuss yard piping installation
Personnel Present:
- | | |
|-------------------|---------|
| Lee Orosz | MWH |
| Travis Klingforth | MWH |
| Lance Bartolo | IES |
| Dan Petrich | IES |
| Jerry Clark | Ryan |
| Terrence Jones | IES |
| Mike Petrich | IES |
| Keith Peters | BVSFC |
| Tim Kitteland | Avstgen |
- 0735 Spoke with L. Orosz - he reported
IES exposed damaged 3" ϕ line
yesterday but could not repair
because of rain. Will repair this
morning and pressure test.
- 0750 Roll 32 Photo 14 facing northwest
showing damaged 3" ϕ pipe at SVE46
tee and air sparge point
- 0755 Roll 32 Photo 15 facing NW of
IES monitoring excavation with PID -
no readings.

(95)

11/22/02

J. E. Martin

- 0800 Slight odor observed as IES digging around
pipe - IES wearing 1/2 face respirator.
- 0835 Roll 32 Photo 16 facing west of IES preparing
pipe for welding.
- 0900 Roll 32 Photo 17 of IES scanning coupling
for electrical fusing of pipe.
- 0930 Spoke with L. Orosz - he reported that the
geotextile for under blower shed foundation
can't be delivered today. MWH to check if
IES has tube, if not, MWH can't set the
stub-ups at blower shed. Ryan Construction
to bring concrete blankets to lay at
shed foundation to keep ground from freezing
in order to pour concrete next week.
- 0945 Roll 32 Photo 18 facing SE placed on
SVE scrubber warning of high temp.
L. Orosz reported MWH placed placards
on Tuesday. Placard also on thermox unit.
- 1000 IES completed fusing the pipe repair. IES
to start pressure test in 15 min.
- 1010 Roll 32 Photo 19 facing SW of Ryan
placing concrete blankets at future blower
shed on ONCA.
- 1030 Observed IES preparing 1 inch ϕ line to connect
to SVE46. IES ϕ not installed saddle

J. E. Martin

(96)

Y. J. Carter

11/22/02

or tapped in to the well. IES needed to repair 1 inch line because of pin hole for testing of pipe.

1040 Observed IES pressure test 3-inch ϕ water conveyance pipe for 15 min at 20 psi. - Line not holding 20 psi, IES looking at fittings to see if leak at SVE-46. MWH reported that there was a second location where BLA may have hit the line - IES to investigate. IES does not observe the leak at SVE-46 repair. IES to move to next suspect location to search for leak. IES won't be able to start tapping into wells until 3-inch ϕ line is pressure tested. IES observed air and water bubbling at SVE-87; to excavate at 87 for repair. IES to not start tapping into wells until next week.

1105 Left site for day

~~11/22/02~~
11/22/02

(97)

Tue Nov. 26, 2002

0830 Campbell arrive at site

Weather 30°F, overcast, snow flaker

ON Site Today

Lee Orosz	MWH	Travis Kling for the
Dan Retten	IES	Mike Peters
Lance DeBarto	IES	
Douglas Gray	Ryan	
Tim Kirkland	Austgen	Mike Carson
Rick Flores	"	Tom Kzy
Doug Gough	Ryan	Dave Hinkel
Mark Munnery	"	Jerry Clark
Jim Campbell	BUSE	

0900 Travis Kling forth reported that leak in 3" conveyance pipe was repaired at SVE 87 on Friday afternoon. Pressure testing identified another leak at SVE 77. This was repaired yesterday.

0920 Roll 32 Photo 30 looking W showing drilling of lower hole for water conveyance pipe connection at SVE 87

0930 Roll 32 Photo 21 looking SW showing drilling ops at SVE 87 - Note Nitrogen cylinder used to inert well while drilling. Also grounding strip between N & well

Jim Campbell

(98)

M Campbell

- 0940 Roll 32 Photo 22 looking SW
at inflatable plug inserted into
SVE well below location of
drilling to keep explosive vapors
below drilling location
- 0945 Roll 32 Photo 23 looking E
showing preparation to lower
inlet port of water pitless
adapter into well 87.
- 0950 Roll 32 Photo 23 looking SE
showing installation of washer
and nut to secure water pitless
- 1000 Roll 32 Photo 24 looking E
showing drilling of vapor hole 3" dia
in SVE 87
- 1100 Photo 25 Roll 32 looking SE
at S end of GUOTP where
new concrete slab is to be
poured for new thorny unit
- 1155 Photo 26 Roll 32 looking NW
at vapor pipe stubup in
ONCA Blower shed area
- 1200 Travis indicated there was
a problem with 3" vapor saddle - being
checked out
- 1215 Left site Not much work going on
M Campbell

12/3/02

High Epsilon

(99)

DN5 Arrive on-site 20°F, P. Cloudy, light N breeze

Personnel Present:

Lee Orosz	MNH
Terrence Jones	IES
Dan Petrich	IES
Mike Petrich	IES
Lane DeBartolo	IES
Travis Klingforth	MNH
Leigh Peters	BVSPC

0720 Spoke with T. Klingforth - IES completing
3 DPE wells per day - should be complete mid
next week. PID readings peak at 180 ppm
but sustained levels vary from 1-3 ppm.
Received IES's HASP today.

0750 Went to ONCA, observed IES begin excavating
at SVE-63.

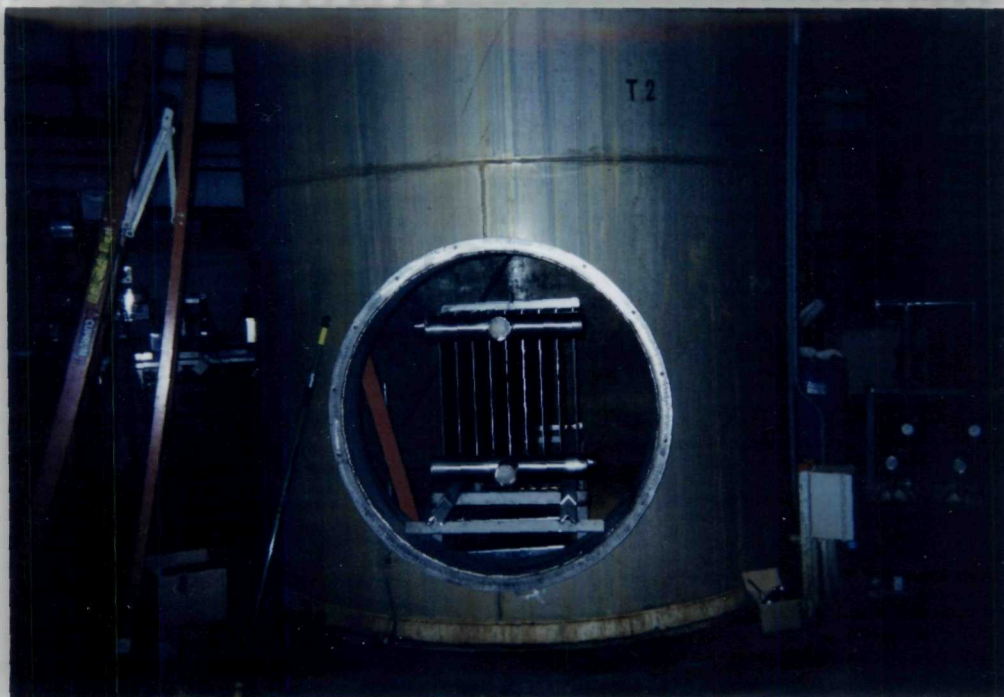
0755 Roll 33 Photo 1 facing SE of IES at excavation
for SVE-63 removing clay at well. Note No
tank secured to cart.

0800 T. Klingforth reported No tank secured to
cart yesterday. He reported that tank had
previously been secured to generator.

0810 IES measured NW SVE-63 with PID - peaked
at 496 ppm

0820 Roll 33 Photo 2 facing SW at IES monitoring

High Epsilon



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 31 Photo #18
 Date: 11-05-02 Time: 07:35
 Photographer: Leigh Peters
 Description: Photo facing northwest in GWTP showing
 the heat exchanger installed at the base of
 tank T-2.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 31 Photo #19
 Date: 11-05-02 Time: 08:10
 Photographer: Leigh Peters
 Description: Photo facing north showing HHSI installing
 the gravel road located on the central
 portion of the SBPA.



Site: American Chemical Services, Inc.
 Proj. #: 46526

Roll: 31 Photo #20

Date: 11-05-02 Time: 08:40

Photographer: Leigh Peters

Description: Photo facing south showing BLA setting the screen and riser for ONCA DPE well SVE-79.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 31 Photo #21

Date: 11-05-02 Time: 09:05

Photographer: Leigh Peters

Description: Photo facing east showing HHSI compacting the gravel placed on the geotextile for the SBPA road.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 31 Photo #22

Date: 11-05-02 Time: 09:30

Photographer: Leigh Peters

Description: Photo facing west showing BLA placing the sand pack in ONCA SVE well SVE-49.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 31 Photo #23

Date: 11-07-02 Time: 08:15

Photographer: Leigh Peters

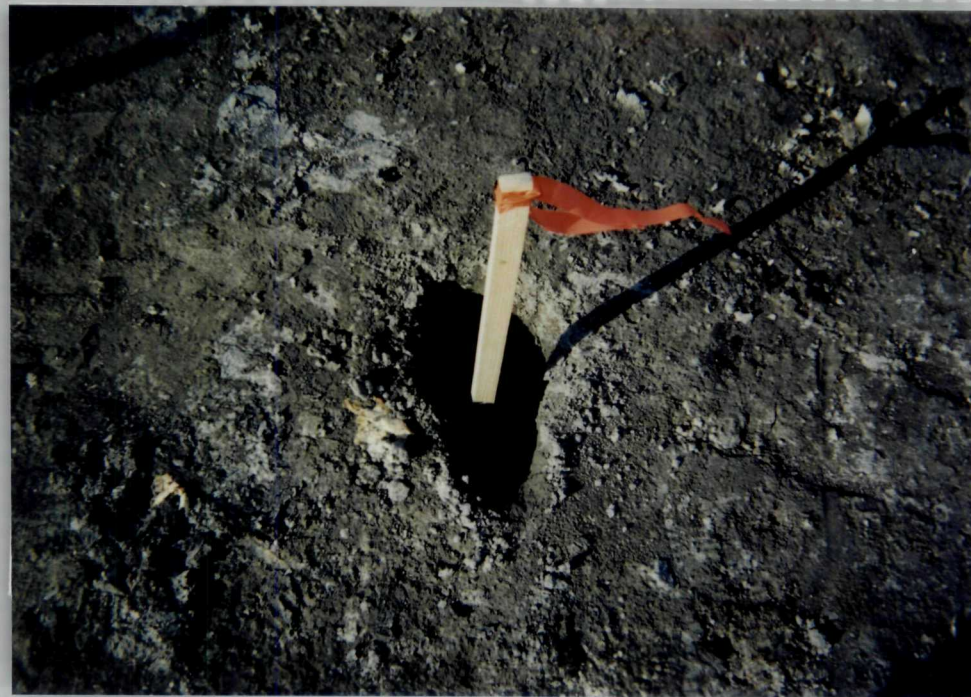
Description: Photo facing south showing HHSI placing additional clay on the SBPA interim cover.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 31 Photo #24
 Date: 11-07-02 Time: 09:00
 Photographer: Leigh Peters
 Description: Photo facing north showing BLA drilling
 ONCA ISVE well SVE-59.



Site: American Chemical Services, Inc.
 Proj. # 46526
 Roll: 31 Photo #25
 Date: 11-07-02 Time: 09:40
 Photographer: Leigh Peters
 Description: Photo facing southwest showing BLA
 deconning at the perimeter of the exclusion
 zone at ONCA ISVE well SVE-80.



Site: American Chemical Services, Inc.

Proj. # 46526

Roll: 31 Photo #26

Date: 11-07-02 Time: 11:50

Photographer: Leigh Peters

Description: Photo facing south showing BLA setting the well at ONCA ISVE DPE well SVE-82.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #1

Date: 11-7-02 Time: 13:30

Photographer: Leigh Peters

Description: Photo facing south at ground showing a backfilled borehole.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #2

Date: 11-7-02 Time: 15:10

Photographer: Leigh Peters

Description: Photo facing northwest showing BLA placing bentonite pellets at ONCA SBPA ISVE well SVE-89.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #3

Date: 11-12-02 Time: 08:40

Photographer: Margaret Clark

Description: Photo facing east showing BLA installing ONCA SBPA ISVE well SVE-47.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #4

Date: 11-12-02 Time: 09:00

Photographer: Margaret Clark

Description: Photo facing east showing BLA performing air monitoring during the installation of ONCA SBPA ISVE well SVE-47.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #5

Date: 11-12-02 Time: 10:15

Photographer: Margaret Clark

Description: Photo facing east showing the ONCA interim cover.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 32 Photo #6
 Date: 11-12-02 Time: 10:15
 Photographer: Margaret Clark
 Description: Photo facing east showing the ONCA interim cover.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 32 Photo #7
 Date: 11-12-02 Time: 13:00
 Photographer: Margaret Clark
 Description: Photo facing southeast showing BLA drilling ONCA SBPA ISVE well SVE-48.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #8

Date: 11-12-02 Time: 13:26

Photographer: Margaret Clark

Description: Photo facing southeast showing BLA installing ONCA SBPA ISVE well SVE-48 and performing air monitoring of the drill cuttings.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #9

Date: 11-12-02 Time: 14:15

Photographer: Margaret Clark

Description: Photo facing north from the ACS breakroom building showing the stormwater line to be re-covered.



Site: American Chemical Services, Inc.
 Proj. #: 46526

Roll: 32 Photo #10

Date: 11-12-02 Time: 14:16

Photographer: Margaret Clark

Description: Photo facing north from the ACS breakroom building showing the stormwater line to be re-covered located along the west side of the breakroom.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #11

Date: 11-14-02 Time: 14:30

Photographer: Larry Campbell

Description: Photo facing north showing the installation of the screen and riser at ONCA SBPA ISVE well SVE-54.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #12

Date: 11-14-02 Time: 14:40

Photographer: Larry Campbell

Description: Photo facing northeast showing BLA placing the filter pack sand in ONCA SBPA ISVE well SVE-54.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #13

Date: 11-14-02 Time: 14:45

Photographer: Larry Campbell

Description: Photo facing east showing the abandoned borehole where the Area Survey crewmember was injured. Borehole has been mostly backfilled with cement grout.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #14

Date: 11-22-02 Time: 07:50

Photographer: Leigh Peters

Description: Photo facing northwest showing the damage to the 3-inch-diameter groundwater conveyance piping located near ONCA SBPA ISVE well SVE-46.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #15

Date: 11-22-02 Time: 07:55

Photographer: Leigh Peters

Description: Photo facing northwest showing IES performing air monitoring of the excavation near ONCA SBPA ISVE well SVE-46.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #16

Date: 11-22-02 Time: 08:35

Photographer: Leigh Peters

Description: Photo facing west of IES preparing the HDPE piping for welding.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #17

Date: 11-22-02 Time: 09:00

Photographer: Leigh Peters

Description: Photo facing northwest of IES scanning the coupling to weld the HDPE piping.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #18

Date: 11-22-02 Time: 09:45

Photographer: Leigh Peters

Description: Photo facing south showing the placarding installed on the OFCA ISVE scrubber.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #19

Date: 11-22-02 Time: 10:10

Photographer: Leigh Peters

Description: Photo facing southwest showing Ryan Construction placing concrete blankets at the location of the future ONCA SBPA ISVE system blower shed.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #20

Date: 11-26-02 Time: 09:20

Photographer: Larry Campbell

Description: Photo facing west showing IES drilling the 1 3/4-inch-diameter hole for the water conveyance piping connection at ONCA SBPA ISVE well SVE-87.



Site: American Chemical Services, Inc.

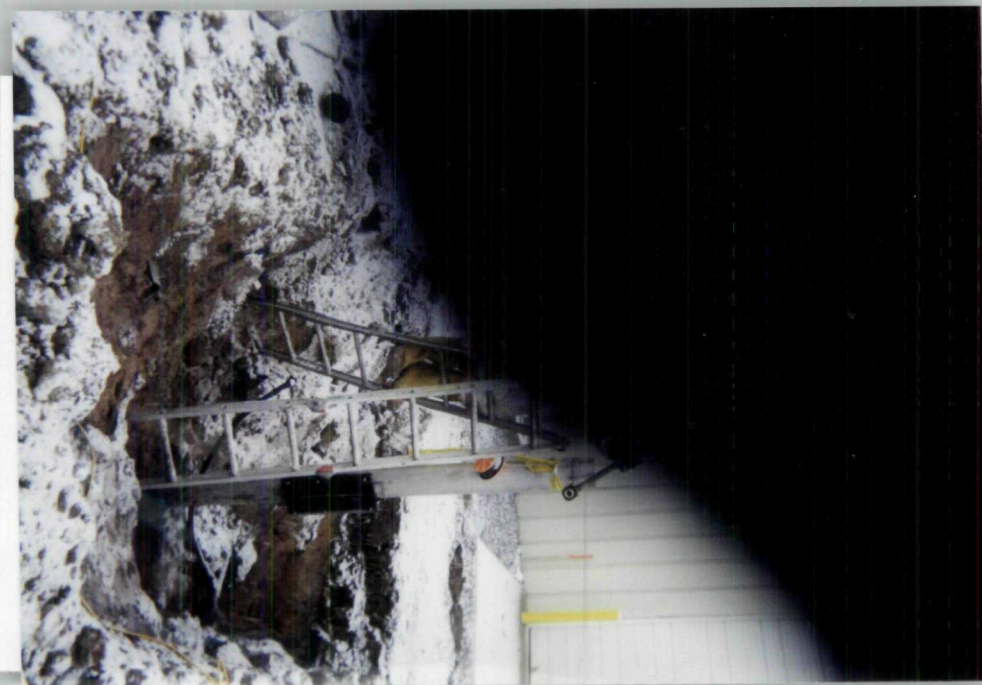
Proj. #: 46526

Roll: 32 Photo #21

Date: 11-26-02 Time: 09:30

Photographer: Larry Campbell

Description: Photo facing southwest showing the drilling operations at ONCA SBPA ISVE well SVE-87. Note nitrogen cylinder for inerting and grounding strip.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #22

Date: 11-26-02 Time: 09:40

Photographer: Larry Campbell

Description: Photo facing southwest showing the inflatable plug inserted into the SVE wells below the drilling location in order to plug vapors.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #23

Date: 11-26-02 Time: 09:45

Photographer: Larry Campbell

Description: Photo facing southeast showing the preparation to lower the interior portion of the pitless adaptor into ONCA ISVE well SVE-87.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 32 Photo #24

Date: 11-26-02 Time: 09:50

Photographer: Larry Campbell

Description: Photo facing southeast showing the installation of the washer and the nut used to secure the pitless adaptor.



Site: American Chemical Services, Inc.

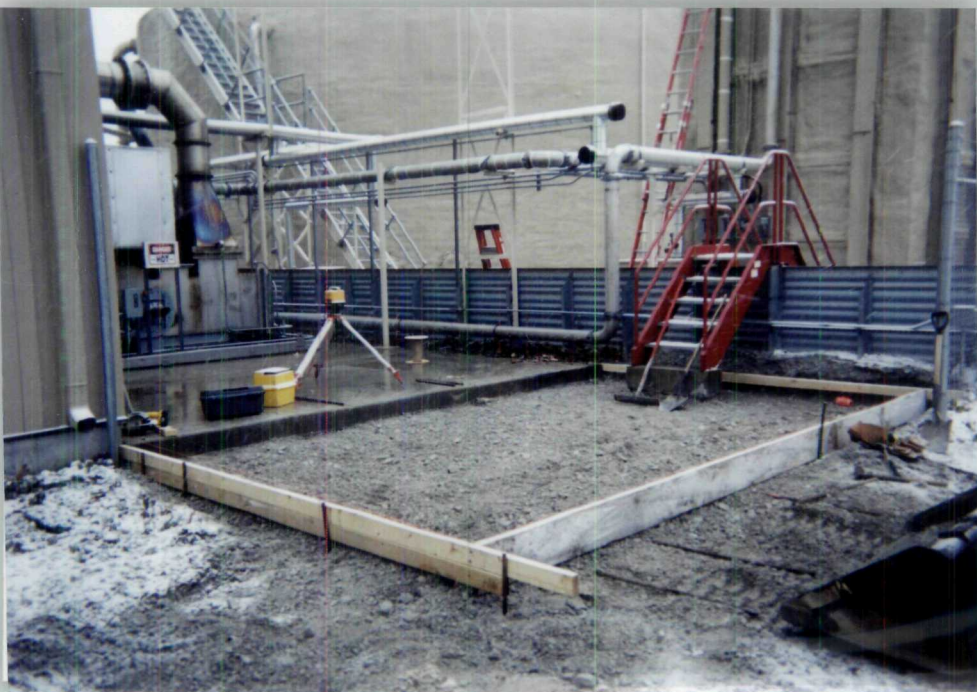
Proj. # 46526

Roll: 32 Photo #25

Date: 11-26-02 Time: 10:00

Photographer: Larry Campbell

Description: Photo facing east showing IES drilling the 3-inch-diameter hole for connection to the vapor conveyance piping in ONCA SBPA ISVE well SVE-87.



Site: American Chemical Services, Inc.

Proj. # 46526

Roll: 32 Photo #26

Date: 11-26-02 Time: 11:00

Photographer: Larry Campbell

Description: Photo facing southeast at southern end of the GWTP showing where the concrete slab will be poured for the ONCA SBPA ISVE system thermal oxidizer.



Site: American Chemical Services, Inc.

Proj. # 46526

Roll: 32 Photo #27

Date: 11-26-02 Time: 11:55

Photographer: Larry Campbell

Description: Photo facing northwest showing the vapor pipe stubups in the location for the ONCA SBPA ISVE system blower shed.